

MDEQ Summary and Strategy for Management of Enbridge Energy's Line 6B Oil Spill to Talmadge Creek and the Kalamazoo River

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The Michigan Department of Environmental Quality (MDEQ) strategy going forward incorporates an upstream to downstream approach for management of the Enbridge oil spill to assure compliance with state law requirements within the Spill Area as defined within the Administrative Consent Order and Partial Settlement Agreement (Order) entered between the MDEQ and Enbridge on November 1, 2010. Working from the farthest upstream point of the spill area (the Source Area) through the farthest downstream point (Morrow Lake), the MDEQ has identified a general process for investigation, remediation, restoration, and monitoring to work toward project end points.

MDEQ focus areas for the project with specific steps:

- Administration and permitting consistent with Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended
- Oversight of the remedial investigation (RI) for the Source Area, Talmadge Creek, and the Kalamazoo River, including well monitoring and chronic toxicity studies for both the Kalamazoo River and Talmadge Creek
- Oversight of remedial action as needed
- Review of Enbridge submittals for compliance with state law
- Restoration and Mitigation plan approvals for the Source Area, Talmadge Creek, and Kalamazoo River
- Review of Enbridge submittals for MDEQ affirmation of end points
- Oversight and monitoring of restoration and mitigation for a minimum of 5 years
- Erosion and sheen monitoring

Step 1: Complete remedial investigation and response actions.

Two rounds of excavation of the Source Area and Talmadge Creek have been completed. Additionally, EPA-directed activities have included dredging of the Ceresco impoundment, and isolated excavations associated with the Kalamazoo River. EPA has informally transferred the majority of the overbank within the spill area to MDEQ; however, additional submerged oil recovery in the form of dredging upstream of the Ceresco Dam, Battle Creek Mill Ponds, and Morrow Lake Delta and Fan may be conducted under EPA lead.

Sampling under the current MDEQ-approved RI work plans submitted under the Order will continue in an upstream to downstream fashion, and will include chronic toxicological evaluations of Talmadge Creek and the Kalamazoo River under plans currently in development.

RI data will be evaluated in manageable segments. Segments are based upon division of the approved RI workplans, however in-channel evaluations downstream of MP 4.25, or near other ongoing or anticipated dredge operations, will be restricted until any further EPA-led recovery efforts are completed:

- i. Source Area
- ii. Talmadge Creek (up to confluence with the Kalamazoo River ~Mile Post 2.25)
- iii. MP 2.25 - MP 3.14
- iv. MP 3.14 – MP 5.80
- v. MP 5.80 – MP 11.00
- vi. MP 11.00 – Morrow Lake

While the majority of the RI data has yet to be summarized by Enbridge and submitted for MDEQ review, evaluations of soil boring data received thus far have indicated some exceedances of Generic Part 201 Residential Criteria. MDEQ will continue to use residential criteria as a conservative screening level for the RI analysis, but may require the development of site-specific criteria if warranted. Toxicological data will be reviewed by MDEQ staff toxicologists, with input from USFWS and MDNR staff as appropriate.

Groundwater, surface water, and drinking water monitoring will continue as appropriate based on evaluation of data and MDEQ staff geologists will review Enbridge's Hydrogeological Study to confirm flow patterns and assess potential for groundwater contamination.

To facilitate progress, MDEQ will evaluate and seek modifications to the Conceptual Site Model. A new Schedule of Work will be developed to include presentation of RI data for defined creek and river segments using the upstream to downstream approach.

Step 2: Continue passive response activities as appropriate.

EPA maintains the lead on both active and passive submerged oil collection activities to date, and when EPA and MDEQ determine the time is right for transition, the MDEQ is prepared to assume the lead relative to EPA transitioning. MDEQ has been involved in oversight and monitoring of sediment trap activities. MDEQ is also prepared to oversee the sheen management program, with potential to expand the program if needed, as it transitions from EPA.

Step 3: Implement restoration activities.

MDEQ staff specialists have assembled into Part 301 and 303 subgroups to provide recommendations on restoration requirements under Michigan law for impacted areas, both in main channel and overbank areas. This information is being conveyed to Enbridge with the understanding that it will be essential to approval of any final restoration plans for either Talmadge Creek or the Kalamazoo River. Upon approval of final restoration plans, MDEQ staff will oversee the restoration activities and monitoring. Restoration activities will be implemented in the same sequence that response activities are completed in an upstream to downstream sequence. Restoration activities will be implemented once it has been demonstrated that there is little likelihood of additional disruption from further response activities.

Step 4: Implement Mitigation Activities.

Similar to step 3, MDEQ staff will continue to meet with Enbridge and their representatives to evaluate mitigation requirements under Michigan law.

Step 5: Monitor restoration and mitigation activities and control invasive species and erosion.

Monitoring of restoration and mitigation sites, and invasive species and erosion control, will be overseen by MDEQ field staff following approved restoration, mitigation, and invasive species control plans. This will include required monitoring reports to be submitted by Enbridge to MDEQ, with associated site evaluations, for a minimum 5-year monitoring period following MDEQ approval of plans (erosion monitoring may be less).

Step 6: Documentation of endpoints

As appropriate, and in compliance with State law, Enbridge may request from MDEQ affirmation of completion of activities. These MDEQ affirmations/approval may be provided in various forms.

Schedule of Work:

MDEQ expects Enbridge to begin final restoration activities for all impacted areas within the next two growing seasons, following approved Final Restoration Plans for the Source Area/Talmadge Creek and the Kalamazoo River. This will require completion of the steps outlined above, for areas where no additional remedial action is required. Specifically, it will be necessary for Enbridge to present data summaries and all deliverables required under the Order with sufficient time to allow for appropriate MDEQ review and comment, and concerns to be addressed, prior to final restoration beginning for each segment. Implementation of final in-channel and overbank restoration for the Source Area, Talmadge Creek, and the Kalamazoo River to Ceresco is expected to begin in 2013. Restoration of the remaining impacted areas from Ceresco to Morrow Lake should be implemented in 2014.